

AppCentric Catalog: Schema & Class Interactions

This document explains the JSON schema used by the AppCentric catalog and how the logical classes relate: Product → (Vendor, ProductLine, Categories, Patches*, Vulnerabilities*). Within a Product, a Patch may include one or more Packages. A Vulnerability may include one or more version Ranges. (Fields marked with * are arrays and can be empty.)

1) TopLevel Object

Fields:

Field	Type	Notes
generated_at	string (date-time)	UTC timestamp for when the file was generated.
products	array<Product>	Collection of product entries.

2) Class: Product

- 1 **name**: string
- 2 **signature_id**: integer
- 3 **vendor**: Vendor
- 4 **product_line**: ProductLine
- 5 **uninstallable**: boolean
- 6 **categories**: array
- 7 **patches**: array
- 8 **vulnerabilities**: array

3) Class: Vendor & ProductLine

Class	Fields
Vendor	id: integer; name: string
ProductLine	id: integer; name: string

4) Class: Patch

Field	Type / Example
name	string
bulletin	string
patch_id	string (UUID)
platform	string, e.g., 'windows'

patch_type	string, e.g., '3rd_party'
kb_article	string null
latest	boolean
language	string, e.g., 'en-US'
fresh_installable	boolean
background_patching	boolean
validation_supported	boolean
version	string, e.g., '141.0.7390.66'
release_notes	URI string
release_date	string (YYYY-MM-DD)
eula	URI string
uninstall_required	boolean
reboot_required	string (yes no maybe)
architectures	array<string>
language_default	string
properties	array<any>
cve	array<string>
packages	array<Package>

5) Class: Package

Field	Type / Example
name	string
package_id	string (UUID)
url	URI string
sha256	string (SHA-256 hex)
language	string (optional)
architecture	string (optional)

6) Class: Vulnerability & VersionRange

Class	Fields / Notes
Vulnerability	cve: string; cpe: string null; ranges: array<VersionRange>
VersionRange	start: string; end: string (both version-like strings)

7) Relationships (Textual)

- Product has one Vendor and one ProductLine.
- Product may have zero or more Patches and zero or more Vulnerabilities.
- Patch may have zero or more Packages.
- Vulnerability has one or more VersionRange entries describing affected versions.

8) Validation & Notes

- 1 This schema is permissive (no required fields) to accommodate partial data dumps.
- 2 Use 'format: uri' and 'date-time' as hints; consumers should still validate content as needed.
- 3 Version strings are modeled as strings (not numeric) to preserve semantics like 'r73' or '1.14.9'.